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the actual current I_m can be corrected as follows when the coil is next activated in the then-following cycle: $I_{corr} = I_m - I_o$

Please replace the consecutive paragraphs beginning at line 19 of page 8 with the following rewritten paragraphs:

This weighted average value is one possible form of low-pass filter; others are conceivable as readily understood by the skilled artisan. In this case, $I_{o,i}$ is the ith measurement of the offset error, I_m is the actual value of the current(raw value of the analog/digital converter 34) and k is a weighting factor.

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The low-pass filtering takes account of the realization that the offset error I_o fluctuates in a temperature-dependent manner and changes slowly with respect to the sampling rate with which the offset error is determined.

In the Claims:

What is claimed is:

1. (Amended) A method for determining the offset error of a measurement, where the measurement is subject to such an offset error of a coil current of an electromagnetic actuator, comprising:

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measuring the coil current through a corresponding coil when the actuator is in a final position in which the coil is not supplied with current during the operation of the actuator; and

providing the value obtained as the offset error.

2. (Amended) The method as claimed in claim 1, wherein the coil current is measured by potential tapping before and after a resistor connected in series with the coil, wherein

the potential taps are being fed to a differential amplifier, and a constant value is added to a value output by the differential amplifier.

3. (Amended) The method as claimed in claim 1, wherein the actuator has two coils respectively assigned to the final position, and

the coil current through the coil not assigned to the present final position is measured to determine the offset error.

4. (Amended) The method as claimed in claim 3, further comprising:

supplying the coil assigned to the final position with a capture current and a holding current such that the actuator is transferred into the final position.

5. (Amended) A circuit for determining the offset error of a measurement, the measurement subject to an offset error of a coil current I of an electromagnetic actuator, the circuit comprising:

at least one coil with a resistor connected in series into a supply line of the coil;

a differential amplifier to which the potential on both sides of the resistor is fed; and

a control circuit which evaluates the output of the differential amplifier when the coil is not carrying any current during the operation of the actuator, and the value obtained is output as the offset error I_o.

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6. (Amended) The circuit as claimed in claim 5, wherein the output of the differential amplifier is fed together with the output of a constant-voltage source to an adding element such that an offset error of a specific polarity is obtained.

7. (Amended) The circuit as claimed in claim 5, wherein the actuator has first and second coils assigned to a final position, and

a resistor is connected in the supply line to each coil, the differential amplifier taps the voltage dropping across the resistor, and the control circuit evaluates outputs of the differential amplifiers.

8. (Amended) The circuit as claimed in claim 7, wherein the control circuit for supplying current to the first and second coils transfers the actuator into a final position, and

the first coil assigned to the final position carries a capture current and a holding current, and the control circuit evaluates the output of the differential amplifier of the second coil.

#14 9. (Amended) The method as claimed in claim 1, wherein the offset error I_o is determined and low-pass-filtered multiple times.

In the Abstract:

Please replace the Abstract with the substitute Abstract attached hereto.